

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An output filter for a delta sigma modulator, comprising:
a constant current source;
an FIR filter having a plurality of delay element arranged in cascade, each element being operative to that outputs output data of a the delta sigma modulator from each of plural delay elements cascaded, controls by controlling currents from a the constant current source on the basis of each of the output data to thereby attain generate a plurality of weighted currents that are weighted according to a filter characteristic, and adds the weighted currents being added and outputted at an output side of the FIR filter to output the result, wherein:
———the current source is a constant current source.
2. (currently amended): An output filter for a delta sigma modulator as claimed in Claim 1, further comprising a current-to-voltage conversion unit, said unit having an input side coupled to the output side of the FIR filter and comprising that performs the current to voltage conversion by feedback resistors of a full differential operational amplifier and feed back resistors, said amplifier having an on the output side of the FIR filter.
3. (original): An output filter for a delta sigma modulator as claimed in Claim 2, further comprising a single differential conversion operational amplifier on the output side of the full differential operational amplifier.
4. (original): A digital signal processor comprising an output filter for a delta sigma modulator, as claimed in any of Claim 1 to Claim 3.
5. (new): An output filter for a delta sigma modulator as claimed in Claim 1, wherein each said delay element comprises a flip-flop and a respective pair of MOS transistors.

Amendment under 37 C.F.R. § 1.111
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6. (new): An output filter for a delta sigma modulator as claimed in Claim 5, wherein said flip flop generates two outputs and each said output is coupled to a gate of a respective one of the MOS transistors.

7. (new): An output filter for a delta sigma modulator as claimed in Claim 1, wherein said constant current source comprises a common source for generating said plurality of weighted currents.